



Berg
Mt Martha

Caring for the Balcombe Estuary Reserves

THE CREEK

Volume 21 No 5, October 2017

PLASTIC POLLUTION

Over nearly 20 years of coordinating Clean Up Australia Day, BERG Mt Martha volunteers have collected mountains of rubbish. With each major storm, rubbish washes into the Estuary from the Bay. And a large proportion of this rubbish is plastic.



Rubbish, largely plastic, at the SE corner of the Estuary, blown in from the Bay Photo Angela Kirsner

The ABC's recent 'War on Waste' series, their 'Four Corners' program on the mismanagement of recyclables, and the release of the film *A Plastic Ocean* have sharpened the focus on the problem.

Since the ABC programs, we have received calls asking what might be done and offering support and help for any proposed projects. This has included interest (for the first time) from the younger generation.

BERG MM FILM SCREENING: A PLASTIC OCEAN

Dianne Lewis reports

Seventy-seven BERG MM members and others gathered at Balcombe Grammar to watch the feature length documentary *A Plastic Ocean* on Sunday 13th August.

The film graphically illustrates the dangers of plastics as they wash into the sea and are consumed by fish and birds, causing death by starvation. Micro-plastics and associated toxins also enter the human food chain.



Graham Hubbard introduces the film screening at Balcombe Grammar Photo Di Lewis

Liz Barraclough told the group about the plastic nurdle surveys on Mt Martha beach by BERG MM members Peter and Fran Dedrick, in association with The Baykeeper, and similar surveys by Balcombe Grammar students. The Dolphin Institute and Boomerang Bags also told us of their work.

Want to help with Mt Martha plastic litter surveys? Contact Peter & Fran Dedrick on 0487 770 440 or fdedrick@bigpond.net.au.

Boomerang Bags are made by groups who meet to make reusable, eco-friendly bags from spare fabric – old sheets, old clothes, hessian – whatever's available!

Boomerang Bag Project: Call Gwen Giudici, 0424 326 788; OR Tracy Trueman, Sorrento Community Centre, 5984 3360 or 0428 861 430, or manager@sorrentocomunitycenter.com.

The film screening was organised by CAG – the Community Awareness Group. Our thanks to Balcombe Grammar for the use of their hall for the screening.

We were able to make *A Plastic Ocean* available to Balcombe Grammar, where year 7 students saw it. An email from their teacher showed how well it communicates its message (see next column – and see next page for more on plastic pollution).

Don't Forget the
**2017 BERG MT MARTHA
ANNUAL GENERAL
MEETING**

**SATURDAY 28TH OCTOBER
Mt Martha House (Room 64)**

Registration 9.15am, meeting 9.30 sharp

Our Scintillating Speaker is

Dr Teresa Lebel

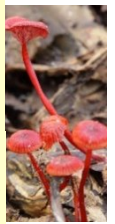
Senior Mycologist,
National Herbarium of Victoria

What are fungi? Where do they fit in our ecosystems?

How do they interact with other organisms?

Come and learn about these weird and

wonderful organisms, and how we can encourage their growth and the good things they do for their ecological community.



SHAIN KURELJA, BALCOMBE GRAMMAR TEACHER, WRITES:

'The kids responded very well to the movie. I had them complete a 40 question quiz and a written response to reinforce the learning. We have had comments from lots of kids and families. Some of the parents have even bought or rented the film to watch with their families.

'I have seen a number of extra stainless steel or glass water bottles. Some kids are using alternatives to plastic wrap around their sandwiches... Some have sworn off things like drinking straws and other single-use items. Some are putting their fruit in the mushroom bags available at most supermarkets rather than taking plastic bags... All in all I think we have made a bit of a difference with the film.'

BALCOMBE GRAMMAR LITTER SURVEY

Forty year 6 students, with teachers and BERG MM input, collected all the litter they could from the estuary's southeast corner, at the end of Henley Ave. They were highly motivated, many having seen the 'War on Waste' series

They learnt about the gross pollutant traps that filter out most of the rubbish in stormwater entering the creek. The rubbish they collected had come very largely from the Bay, deposited at high tide when the estuary mouth was open.

They sorted their collection into recyclables and non-recyclables. The former included glass, plastic bottles, bottles tops, drink cans and paper; the latter, straws, balls, fishing tackle, cigarette lighters, syringes, polystyrene, rope, and bits of plastic.

Like the year 7s who had seen *A Plastic Ocean*, the students had a range of ideas about how to lessen the rubbish load. The most important – don't buy so many throw-away items in the first place.



Above: Balcombe Grammar students collecting rubbish from the SE corner of the estuary.

Below: the sorted rubbish (Photos Liz Barraclough).



TAKING ACTION

Avoid plastic bags! Try fine mesh, reusable bags for veg shopping and storage; you'll find lots on-line (eg 'Rea's Reusable Bag', 'FregieSack'). Buy cheerful re-usable bags at, for example, Natural Balance, Main St, Mornington (see photo). Use paper mushroom bags instead of plastic at the supermarket.



Dolphin Research Institute at Hastings runs education programs for young and old. Their '*I sea, I care*' Ambassador Program trains primary school kids as leaders to take their message back to their school and community. Contact Mandy Robertson, 0497 866 686, education@dolphinresearch.org.au. For more information, go to <http://www.dolphinresearch.org.au/education/isis/>.

WEEDS & WATERBUGS FOR OSBORNE PRIMARY

Jenny Selby reports

The BERG MM website was the first stop for 75 Osborne Primary School Year 5 students. Their aim: to learn about BERG MM and our reserves, before walking to Ferrero Reserve to see for themselves.

They did great work pulling up bags of Forget-me-nots. They helped to find waterbugs as part of a macro-invertebrate survey to assess the health of the creek water. And they also sat quietly on the boardwalk with pen and paper to record their sensory observations.

Many thanks to the BERGers who helped: Debbie McMahon, Lorraine Lamb, Barb Thraves, Flo Gason, and particularly John Inchley and Steve Walsh, who spent much time collecting creek water and equipment and setting up the activity.

VISIT TO BOOGOOLUM WILDLIFE SANCTUARY

Roger Skipsey reports

On Saturday 23rd September about 50 people including families met at Boogoolum Wildlife Sanctuary for a rare opportunity to see the sanctuary. Boogoolum is a 50 acre private property bordering Green's Bush, within the Mornington Peninsula National Park. It's a Land for Wildlife property and protected by a Trust for Nature covenant.

We split into two groups; our group was guided by Daniel Brinkley. Daniel's parents bought Boogoolum from the Green family, and he grew up here. The Brinkleys ran a native plant nursery and captive breeding program for endangered bird species, including the Orange Bellied Parrot, as well as developing the sanctuary complete with wetlands and fire bunkers. Originally, captive breeding was thought to be the best way to save species but the Brinkleys later moved to rehabilitating their habitat instead.

With government funding shrinking, Daniel set up the Habitat Rehabilitation Fund to raise funds to from the public and benefactors. It was great to see the sanctuary but even better to learn about the story behind this property.



We value your membership!

...but if you've not yet renewed,
this may be your last newsletter.

To renew, go to <http://www.berg.org.au/> and click 'Download a membership form'.

MORE ON OUR MUD

Graham Hubbard reports

In August we received the two major consultancy reports commissioned by Mornington Peninsula Shire on the sedimentation of the Balcombe Estuary: *Alluvium's Balcombe Creek Estuary Sedimentation Study: Sediment coring and analysis*; and *Balcombe Creek Estuary Sediment Study: Sediment loads and water quality monitoring and analysis*, by the Centre for Aquifer Pollution Identification and Management (CAPIM).

Layers of history

Alluvium took three core samples some 3 metres deep from the estuary, and a further two shallow ones to look in more detail at the upper layer. These revealed three distinct phases in the estuary's development.

- **Phase 1: 7,000 – 5,000 years ago:** Balcombe Creek was a deep open estuary, its basin probably several metres deep with mud flats exposed at the margins when the entrance was open. The very base of the core dates back to some 7,000 years ago, before the river channel was flooded at the end of the last Ice Age. Above this, layers of highly organic material (a flooded marsh surface or basin of accumulated plant material) show the first stage of marine influence on the Creek. Sea level would have been close to or slightly higher than today.
- **Phase 2: 5,000 years ago to near present.** With gradual sediment build-up from the catchment, the estuary floor built to a depth where seagrass could thrive, and a vibrant and widespread seagrass community established, some 0.5 metres below the present surface. The estuary was probably 1-2 metres deep.
- **Phase 3: Recent years.** European settlement brought major disturbance of the catchment, with clearing for agriculture and urbanisation, leading to an influx of sediment into the estuary. Over the past 80 years or less, this sediment has smothered the

seagrass beds and built the islands that are now exposed at low water levels.

Sources of sediment

CAPIM analysed 15 drains entering the creek and estuary, and found:

- The Hopetoun Creek drain is by far the largest source of sediment, followed by the Henley St and Augusta St drains.
- The Uralla Drive drain is not an important contributor.
- Storm flows, not regular rainfall, carry most sediment into the creek.
- Some 14 tonnes of suspended sediment were discharged into the estuary between 28th September and 23rd October 2016 during three storm events.

The sediment was thickest on a delta on the estuary's southern edge, at the outlet of the Henley St drain – a clear indication that the main source of sediment is now local run-off from the urbanised areas.



*The delta of silt at the Henley St drain outlet.
Photos: above, Angela Kirsner; aerial view below, from the Capim study*



What's to be done?

Essentially, the reports show that the Shire needs to take significant action to improve the quality of the stormwater flowing into Balcombe Creek and Estuary. This means infrastructure changes in the catchment, additional treatment at outflows, and/or slowing or diverting water flows before they reach the estuary.

Priority should be given to the Henley St and Hopetoun Creek drains – the main offenders.

Strategies might include revegetating along waterways, identifying erosion hotspots or sources of fine sediment, road drainage and diversion systems to funnel eroded material into buffer systems such as swales (vegetated or unvegetated), and sediment pits to offset water quality degradation downstream.

Sealing dirt roads may help alleviate the volume of road-base material entering the creek. It would, however, also lead to increased run-off from the sealed surface, requiring further infrastructure to treat stormwaters before they enter the creek.

Water and sediment quality monitoring should continue, and transport of sediments in bedload (ie at the base of the flow rather than suspended) and other pollutants including gross litter and heavy metals should be considered as part of future monitoring.

Making it happen

The Shire, Melbourne Water and BERG MM have recently done substantial work and revegetation in Hopetoun Creek upstream from the Balcombe Preschool, to help address the sediment problem. The Shire has also done works in Ailsa, Byron, Reeve and Moore Streets, as a result of last year's BERG MM proposal to the Shire on more effective spending to reduce sediment. This should help to reduce sediment flows from these areas, which are in the most critical places identified in the research.

The Shire is now preparing a plan of action and arranging a meeting involving BERG MM and both sets of consultants.

Sedimentation is an issue BERG MM has been pursuing for some years through our Sedimentation Action Group. With these comprehensive reports, we look forward to discussing with the Shire a definitive, effective plan of action.

FIELD NEWS

Field Officer Liz Barraclough reports

Sunday working-bees

In August we devoted the morning to essential follow-up in The Jaw area (north bank, deep into the bushland below Uralla Bridge). We hand-weeded round grasses planted earlier, and tied them up or staked and guarded them so our contractors could spray safely around them, ahead of more planting by the Friday Group.

In September we had a good turn up on one of that month's few fair-weather days, and we planted 220 indigenous shrubs and trees by the lower reaches of Hopetoun Creek, above Ferrero Ovals (a Melbourne Water 2016/17 grant site). It was incredibly wet and boggy. We decided the whole area should be completely revegetated to extend and improve the riparian zone, a move that will also save on mowing. We also cleaned up round earlier plantings and re-staked the trees in the Rabbit Paddock.

A big thank you to Cate Clarke for a delicious morning-tea.

Friday morning group

As usual, we worked in the Quarry and near Uralla Bridge.

In the Quarry we weeded and planted more of the very local form of Poa (grass) we have dubbed *Poa 'Quarrii'* to thicken up the middle-storey. Near Uralla Bridge, we weeded and planted Weeping Grass and sedges on both banks, and used the weed burner to attack emerging Fumitory seedlings on north side, before planting yet more Poas.

We also worked in the Jaw area, weeding around the planted grasses, and planting shrubs and trees (Hop Goodenia, Cassinia, Kangaroo Apple, Twiggy Daisy, Blackwoods, Swamp Gums, Sweet Bursaria, Silver Banksia).

Shire funding

Work for the year has finished under our 2017 Memorandum of Understanding from the Shire. For many years this annual funding has covered a range of small things that fall outside our grant funding. However, the Shire now has so many Friends Groups needing funds that they have restricted MOU funding to every second year for each, so the

funds can be equitably shared around. We are eligible again in 2019.

Progress below Maude St

The integrated management of this area continues under the Helen Macpherson Smith Trust grant and the Melbourne Water 2017 grant, extending the work already done under the Sally Oatley Memorial Fund and the PPWCMA grant. In the riparian zone, Naturelinks has started to remove woody weeds and scramblers.

Forget-me-nots are a problem in a number of areas, and we have set up four sites to trial different methods of controlling them: steaming with the weed burner; scorching to bare ground; hand-weeding; and spraying.

Throughout this area, however, we are concerned not to destroy too much habitat. The work needs to be done sensitively, as the dense middle and upper storey, though predominantly weeds, provides important habitat and shelter for the small bird species that are prevalent in this site. We can't risk losing these bird populations by exposing them to predators.



Left: At the August working bee, we knotted indigenous grasses to allow for safe weed spraying in The Jaw area, while a Yellow Robin, perched beside a plant guard, and did over the disturbed ground.

Photos Angela Kirsner.

Right: Woody weeds stacked by Naturelinks along Maude St, waiting for collection, 7th August

Photo Angela Kirsner

Below: David Street tackling the Forget-me-nots in the Jaw area, and the result

Photos Liz Barraclough



There is also a high risk of invasion by the aggressive Noisy Miner, as has happened in other sites across the Peninsula. This native bird attacks other species, robs nests, and drives away small birds. It is already a problem in areas round the perimeter of the Reserves. As it is a native species, our only available means of control is to *not* provide an opening for its invasion in the first place. It tends to move into disturbed, more open areas.

We shall therefore move slowly and carefully in weeding this area to ensure there is always enough regeneration to provide habitat and cover for these vulnerable small birds.

\$70,000 in three new grants!

Excitingly, we've just heard that our application for a **Community Volunteer Action Grant for Biodiversity On-ground Action** was successful. At almost **\$46,000**, this is our biggest grant for a single project for many years.

It enables us to continue the bushland restoration around Mt Martha Preschool and the tennis courts on Watson Rd, and in the first burn site, the adjoining mulched site and the Henley Ave drainage line.

Importantly, we will work with the local community and the Bunurong to incorporate community awareness projects and activities into the pre-school and tennis courts area – things such as an indigenous bush tucker garden and interpretation, and bush cubbies,

We were recently awarded a **Port Phillip Bay Fund Grant of \$9,960** to work all around the edges of the estuary and the Mirang Ave drainage line (beside the pathway to the shops). We will weed, plant, remove rubbish and control feral animals. Already we have assessed the site and drawn up a workplan.

And the **Sunshine Foundation** has granted us \$15,000 over three years for restoration work along the South Beach foreshore. This work will be driven by our hard-working Coastal Group.

Weedbusters

Again this year, BERG MM and the Sunshine Reserve Group got together to set up a stand and weed display outside the IGA on Saturday 2nd September. Despite a windy, chilly day, there was interest from the passers-by, one of whom commented that it was 'good for people to see there is an interest and involvement in the local environment'.

BIG TREES

Our reserves have few large, mature trees left. First came major clearing of large trees for firewood in the late 19th century. More recently, persistent possum attack has done considerable damage, especially to our Eucalypts. There are a host of other factors in play, as conditions have changed over time, including trees' access to water in a landscape of roads and houses, and shortage of predators to manage insect attack.

We have been addressing this problem since BERG MM's inception. Each year we have planted many trees and tree species throughout the reserves, and trees are always part of our grant plantings. For each of the past five years, for example, we have put in between 50 and 100 Coast Banksias along and near the foreshore (as well as many other trees). Not all survive, but a number are emerging above the middle-storey.

This year we have planted over 200 trees. Where possible, to minimise damage from possum attack, we have placed the Eucalypts in relatively open areas, not close to other trees that could provide possum 'highways' to them. If necessary, we can band the trees, provided there is no other possum access to them.

It will take some years for our tree plantings to be obvious in the reserves, but we hope in time to restore a substantial over-storey of large trees. And way down the track, in our children's and grandchildren's lifetime, these trees should start to provide nesting hollows.

COASTAL GROUP

Suzanne Ryan reports

Thanks to Barb Thraves, who ran the group while I was away. With Tamara (Naturelinks) and two other BERGers, in August they hand-weeded annual grasses around the Poa patch south of Coolangatta Rd, and cut and painted larger woody weeds.

In September, four BERGers plus Tamara Keyte checked plants and guards at the southern end of the coastal reserve, weeded inside plant guards, and removed Dolichos Pea, a robust and smothering weed vine. The volunteers were also taught to use the weed burner to tackle patches of Vulpia (a widespread weed grass), Briza (Quaking Grass) and Fumitory.



Dolichos Pea (above) and Fumitory (below)
Photos Angela Kirsner



Meanwhile, weeding and planting by contractors continues along the foreshore under our Coastcare Victoria Community grant.

TUESDAY GROUP

Jenny Selby reports

In September, four of us – Karin, David, Patricia and I – under Pia's supervision weeded out garden escapes from the reserve behind Barossa Court. We then removed Banana Passionfruit, Polygala, Blackberry and more from the nature strip at the corner of Latrobe Drive and Barossa Court, before heading for our regular patch, The Bunyip, to search out re-emerging grassy weeds, Bridal Creeper, and anything else we could find.

**RESCUE NO 2 (ATTEMPTED)
AT FISHIES BEACH**

Marg Mackie reports

Monday September 4th – not me this time, but Sally, Mariese and Sue Milton found a Loggerhead Turtle lying on its back on the beach. Efforts to return it to the sea only resulted in Sally falling into the water.

Ken, another regular beach walker, estimated its weight at around 20k, photographed it and contacted a Turtle ‘Hot Line’. Other interested volunteers kept watch until help arrived and the turtle was taken to the Melbourne Aquarium. Sadly, it was diagnosed with a severe infection and euthanized.


CAN YOU HELP?

A FEW MORE SAUSAGE SIZZLERS NEEDED!

When: Sunday October 22nd **Where:** outside Bunnings.
Thanks to all those who have offered to help at this fund raiser. A few more hands would be great!
Call John Trevillian 0400 229 449.

BERG Mt Martha welcomes new members

Patricia Hepburn & family; Steve Walsh; Jeanette Miller; Gwen Giudici & family; John & Nadia Anderson; John Shaw; James & Anne Syme; Becca, Simon & Jemima Smith

BERG MM Working Bees	Other BERG MM Activities	Other Groups
<p>❖ Sunday working bee: monthly, 2nd Sunday, between 9am & 12noon. Details emailed a few days ahead, or call Liz Barraclough 0408 388 430.</p> <p>❖ Tuesday working bee: monthly, 2nd Tuesday between 9am & 12 noon, meet at end of Latrobe Dve. Call Jenny Selby 0432 719 288.</p> <p>❖ Coast Group: monthly, 3rd Wednesday, between 9am & 12 noon, meet in car park by the Yacht Club. Call Suzanne Ryan 0418 387 604.</p> <p>❖ Friday working bee: weekly between 9.30am & 12 noon. Call Sue Betheras 0408 808 201.</p>	<p>❖ Waterwatch testing: monthly, 4th Sunday 9.15am, starting at Augusta St Bridge. Call John Inchley 5974 1095.</p> <p>❖ BERG Mt Martha Committee meets monthly at Mt Martha House, 9.00am, usually the 2nd Saturday. Next meetings 14th October & 11th November. All members welcome.</p>	<p>❖ BirdLife Mornington Peninsula bird-watching 2nd Wednesday and 3rd Sunday. Enquiries to Max Burrows 9789 0224, mornington@birdlife.org.au or www.birdlife.org.au/locations/birdlife-mornington-peninsula.</p> <p>❖ SPIFFA 1st Monday, 7.30 pm, at Parks Vic, Hinton St, Rosebud. Enquiries 5988 6529, or www.spiffa.org.</p> <p>❖ Sunshine Reserve working bee 9.30am, last Thursday of month. Call Pia Spreen, 5974 1096</p>
<p>BERG MT MARTHA COMMITTEE</p> <p>PRESIDENT GRAHAM HUBBARD • VICE PRESIDENT PETER MCMAHON • SECRETARY DIANNE LEWIS • TREASURER JULIE ZAMMIT • FIELD OFFICER LIZ BARRACLOUGH • NEWSLETTER ANGELA KIRSNER • COMMUNITY AWARENESS BARBARA THRIVES • PHILANTHROPY BRONWYN STREET • WATERWATCH JOHN INCHLEY • FORESHORE GROUP SUZANNE RYAN • ASSISTANT TREASURER SUE MILTON</p>		
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